

CLAIMS:

1. A gas discharge lamp for the wavelength range of extreme ultraviolet radiation and/or soft X-ray radiation with at least two electrodes (1, 2) for generating a radiation-emitting plasma (8) in the intervening discharge space (6), one of said electrodes (1, 2) having a continuous opening (4) to an adjoining outer region (9), such that charge carriers
5 can be generated in said outer region (9) and can be transported through said opening (4) into the discharge space (6), characterized in that the electrode opening (4) narrows in the direction of the outer region (9).
2. A gas discharge lamp as claimed in claim 1, characterized in that means for a
10 pre-ionization of gas in the outer region (9) are provided.
3. A gas discharge lamp as claimed in claim 1 or 2, characterized in that the electrodes are manufactured from a material in their opening regions which is less prone to erosion than is the remaining electrode material.
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4. A gas discharge lamp as claimed in any one of the claims 1 to 3, characterized in that an electrode opening is provided with a continuous or stepped transition.
5. A gas discharge lamp as claimed in any one of the claims 1 to 4, characterized
20 in that a constriction is present inside the electrode opening.
6. A gas discharge lamp as claimed in any one of the claims 1 to 5, characterized in that the cathode is provided with the narrowing continuous opening.